

ABSTRACT

Quality of Service (QoS) is an important thing that should be noticed in real-time communication services which have sensitivity of link state condition, such as *video streaming*. Rapid development of IP networking system demands application that could guarantee QoS standard on real-time services.

Network topology is the part that explains relation among nodes based on utility, limited resource and limited budget, which means created topology can be adapted to real area condition. Different topology can produce different QoS parameter result, considering that different topology can cause different packet routing.

In this Final Assignment, QoS parameters are compared from some network topologies based on MPLS network simulation with 7 routers and 12 links on 5 different topologies. Based on QoS parameters (delay, throughput, packet loss, and jitter) measured by Dynamips PC Router, it is concluded that changing topology doesn't have significant influence on QoS parameters of video streaming, but hop count to destination can influence QoS result.

Keywords: MPLS, topology, video streaming, real-time